



REQUEST FOR RECONSIDERATION OF CLAIM REJECTIONS

Claims 1-15 and 33-37 are directed to a method of making reinforced paperboard cartons that is not anticipated by or obvious in view of the prior art. These claims are allowable over the art without amendment, as detailed in the discussion that follows. Reconsideration of the initial rejections of claims 1-15 and 33-37 and consequent allowance is therefore earnestly solicited.

I. 102(b) Rejections

Claims 1-6, 11, and 33 have initially been rejected under 35 USC §102(b) as being anticipated by Seufert (US 4,733,916). Of the rejected claims, claims 1, 11, and 33 are independent claims. Claims 2-6 depend from claim 1 and therefore include all of the steps recited in claim 1 in addition to further steps added in these claims. Thus, if claim 1 is not anticipated by Seufert, then claims 2-6 likewise are not anticipated. This discussion will therefore focus on independent claims 1, 11, and 33.

In order to anticipate a claim under §102(b), a reference must contain all of the essential elements of the claim. "[A]n anticipation rejection requires a showing that each limitation of a claim must be found in a single reference, practice, or device." *In re Donohue*, 766 F.2d 531, 226 USPQ 619, 621 (Fed.

Cir. 1985). "It is axiomatic that for prior art to anticipate under §102, it has to meet every element of the claimed invention." *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81, 90 (Fed. Cir. 1986). For a rejection under §102, a cited reference is required to show every element of any claim(s) rejected thereupon. MPEP §706.02(a). In the case of a claim directed to a method of manufacture, as in the present application, a reference, in order to anticipate, must teach each and every step of the claimed method. A reference directed to an apparatus does not anticipate a claimed method of making unless the reference also teaches each and every step of the method recited in the claim. In the present case, Seufert fails even to disclose a reinforced paperboard carton, much less each and every step of the claimed method of making such a carton.

In general, Seufert discloses a window folding box (col. 1, line 21) having a clear plastic window. The box is designed to contain merchandise and simultaneously display the merchandise within the box. Window folding boxes, such as those disclosed in Seufert, commonly are used to contain and display, for instance, children's toys (dolls, toy cars, etc.) in a toy store, plumbing fixtures in a hardware store, etc.

More specifically, Seufert concerns a window folding box of the type wherein the clear plastic window extends around one or

more folded edges of the box to provide visibility into the box from two or more sides. In these types of window folding boxes, the paperboard portion of the box typically is provided with a cutout defining a viewing window and a sheet of clear plastic foil, which is slightly larger than the cutout, is positioned to span the window and is glued around the periphery of the cutout on the inside of the box. A problem can occur along a fold line in the region where the paperboard and clear plastic foil overlap. According to Seufert, these points of overlap cause difficulties during folding, since, because of the double material thickness at these points of overlap, material displacement and material stretching can occur. Since the plastic foil blank rests on the inside of the cardboard blank, the plastic foil is crushed during folding in the area of the groove line of the cardboard blank, while the cardboard is simultaneously stretched by the plastic foil in such a way that its outer layer or lining can tear along the groove line (Col. 1, line 37). The result is an unsightly tearing of the cardboard and/or wrinkling of the clear plastic foil along a box edge where the plastic foil of the window meets the cardboard.

To address this problem, Seufert suggests that, at the overlap spots between the cardboard and the clear plastic foil in the area of the box edges, the plastic foil be "thinned down" to a fraction of its original foil thickness directly adjacent

to the bending lines, and that the thinned-down areas of the plastic foil extend at least over the overlap length. This solves the problem, according to Seufert, because the thinned-down areas of the plastic foil are easily deformed under the action of the upsetting forces during folding of the box. These deformations take the form of small creases or wrinkles in the clear plastic within the thinned-down area, which are hidden from view because they are on the inside of the box. In other words, when the box is folded along its edges, the thinned-down areas in the plastic foil of the window easily wrinkles up in response to the stresses that otherwise would result in the problems discussed above.

Salient points to recognize about Seufert is that this reference has nothing to do with a reinforced paperboard carton. The "thinned-down area" of Seufert is not a fold line but rather a wrinkle zone that deforms to relieve stress. Nowhere in Seufert does the word "reinforce" appear, nor is any reinforcing function discussed in the reference. Further, the thinned-down area in the plastic foil necessarily is formed in the foil sheet before it is adhered to the cardboard. If it were applied after the foil was adhered, then the widened thinned-down zone also would be impressed in the underlying cardboard. It is not. The underlying "groove lines" in the cardboard are of constant

thickness and do not change when transitioning into the region of overlap.

With the teachings of Seufert clearly in mind, we now compare the steps of the rejected method claims with the teachings of Seufert. It is clear from such a comparison that Seufert teaches virtually none of the steps recited in the claims and thus fails to meet the legal requirements for an anticipation rejection. The following claim charts illustrate this clearly with respect to independent Claim 1:

CLAIM STEP	SEUFERT
A method of making reinforced paperboard cartons comprising the steps of:	Seufert is not concerned with a reinforced paperboard carton. The words "reinforce," "reinforcement," and "reinforcing" do not appear anywhere in the reference. Seufert is rather concerned with a window folding box and specifically with providing a thinned down wrinkle zone in the clear plastic window at a box edge where the plastic underlies the cardboard to relieve folding stress.
advancing a web of paperboard along a path, the web of paperboard having a width;	Seufert includes absolutely no teaching of advancing a web of paperboard along a path as claimed.
progressively applying at least one ribbon of reinforcing material to the advancing web of paperboard to form a reinforced region, the ribbon having a width less than the width of the web of paperboard and an edge;	Seufert contains no teaching of the claimed step of progressively applying a ribbon of reinforcing material to an advancing web (also not taught) of paperboard. There is no ribbon of reinforcing material in Seufert. The clear plastic foil that forms the transparent box window reinforces nothing, is not a ribbon, and is not "progressively applied" to anything.

<p>scoring fold lines in the web of paperboard, at least one of the fold lines crossing the edge of the ribbon of reinforcing material to define a fold line having a first section within the reinforced region and a second section outside the reinforced region, the first section of the fold line being wider than the second section of the fold line; and</p>	<p>Groove lines 12 (Figs. 1-4) appear in the cardboard blank of Seufert. However, Seufert does not discuss how these groove lines are produced and certainly does not teach the claimed step of scoring fold lines in an advancing web of paperboard to which ribbons of reinforcing material have been progressively applied. Further, the groove lines of Seufert do not have a first section within a reinforced region and a second section outside the reinforced region. The overlap between the clear plastic foil and the cardboard of Seufert is not a reinforced region, but only a means of attaching the foil to the box. Even if this overlap was a reinforced region, the groove line 12 is not wider in this region than outside this region. As illustrated in Fig. 3, the groove line 12 extends underneath the plastic foil and is the same width throughout its length.</p>
<p>forming a transition zone between the first and second sections of the fold line.</p>	<p>As mentioned above, the groove line 12 in Seufert is of constant width even in the section beneath the clear plastic foil. Accordingly, by definition, there is no "transition zone" because there is nothing to transition from or transition to. Seufert fails to disclose the claimed step of "forming a transition zone."</p>

It is clear from the forgoing claim chart that Seufert fails to meet every element of the claimed invention as is required to support an anticipation rejection under 35 USC §102(b). In fact, Seufert fails to teach any of the steps of

the process recited in claim 1. Accordingly, claim 1 is not anticipated by Seufert and a withdrawal of the initial rejection is solicited.

Claims 2-6 depend from independent claim 1 and are not anticipated by Seufert for the same reasons that claim 1 is not anticipated.

Independent claim 11 likewise is not anticipated by Seufert, as illustrated by the following claim chart.

CLAIM STEP	SEUFERT
A method of scoring a fold line in a paperboard carton blank having a base sheet of paperboard and a reinforced region formed by a reinforcing ribbon laminated to the base sheet wherein the fold line transitions from outside the reinforced region to inside the reinforced region, the method comprising the steps of:	Seufert does not teach a method of scoring a fold line. Instead, Seufert is directed to the formation of a thinned-down wrinkle zone in a section of plastic foil to relieve stress. Seufert does not teach a reinforcing ribbon laminated to the base sheet. The clear plastic foil of Seufert is not a ribbon and it is not there to provide reinforcement but rather to form a window allowing the contents of the box to be visible from outside.

<p>providing a multi-point scoring rule having a narrower first section for scoring the portion of the fold line outside the reinforced region and a wider second section for scoring the portion of the fold line within the reinforced region; and</p>	<p>Seufert contains no disclosure whatever of a scoring rule, much less the claimed multi-point scoring rule having a narrower first section and a wider second section. In fact, there is no reason why such a multi point scoring rule would be disclosed in Seufert because multi width scoring is not performed across a junction between a base sheet of paperboard and a reinforced region formed by a reinforcing ribbon laminated to the base sheet as claimed. Even if the thinned down area of the plastic foil of Seufert is considered to be part of a fold line (it is not), it necessarily is formed in the plastic foil before it is glued to the cardboard. Otherwise, the widened portion also would appear in the paperboard.</p>
<p>Impressing the paperboard carton blank with the multi-point scoring rule.</p>	<p>Simply not disclosed in Seufert.</p>

Thus, as with independent claim 1, the method of independent claim 11 is not anticipated by Seufert because Seufert fails to disclose each step of the method as required.

Independent claim 33 likewise is not anticipated, as demonstrated in the following claim chart.

CLAIM STEP	SEUFERT
A method of making reinforced paperboard carton blanks comprising the steps of:	Seufert does not disclose a method of making reinforced carton blanks. Instead, it discloses a window folding box. Reinforcement is not discussed in Seufert. In fact, Seufert fails to disclose any method of manufacture, but rather is directed to a box blank, an apparatus.
advancing a web of paperboard along a path, the web of paperboard having a width;	Seufert utterly fails to disclose a web of paperboard or the claimed step of advancing a web of paperboard along a path.
advancing at least one ribbon of reinforcing material along a path, said reinforcing material having a width less than the width of said web of paperboard;	Again, Seufert contains no disclosure of the claimed step of advancing a ribbon of reinforcing material along a path. In fact, such a step is contrary and would be useless in the fabrication of the Seufert box because the cut and scored plastic foil window necessarily is applied separately to an already cut out and scored cardboard blank. No ribbon of any kind of material is disclosed in Seufert.

progressively deforming the ribbon of reinforcing material; and	This claim step is directed to the method illustrated in Figs. 14-17 of the present application. Here, the ribbon of reinforcing material is progressively corrugated, punched, scored, or other wise deformed as it is progressively advanced along its path. There is no disclosure of anything remotely akin to this claim step. In fact, to deform the plastic foil of Seufert would defeat the very purpose of the window box by forming unsightly creases or corrugations in the window. The goal of Seufert is to prevent window wrinkling.
progressively laminating the deformed ribbon of reinforcing material to the web of paperboard to for a reinforced paperboard carton blank.	Seufert contains no disclosure whatever of progressively laminating anything to anything, much less progressively laminating a deformed ribbon of reinforcing material to a web of paperboard.

In view of the forgoing analyses of claims 1-6, 11, and 33, it is clear that Seufert fails to teach each and every step of the methodology of any of these claims. In fact, virtually none of the steps of the claimed method are taught or disclosed. Accordingly, the initial rejection of these claims under 35 USC §102(b) as being anticipated by Seufert is improper and should be withdrawn.

II. 103 Rejections

Claims 1-5, 7, 11, and 33-37 have initially been rejected under 35 USC §103(a) as being unpatentable over Campbell et al. in view of Seufert. It is stated that Campbell et al. disclose a method of reinforcing paperboard made of paper from rolls with reinforcing tapes, whereupon the blanks are scored by scoring rolls. It is further stated that Campbell et al. does not disclose scoring fold lines with a section of the transverse fold line wider than another section, however, it is contended, Seufert provides this teaching. It is then concluded that it would have been obvious to one of ordinary skill in the art to combine the teachings of Seufert with those of Campbell et al. to render the claimed method obvious. Reconsideration of this initial rejection is solicited in view of the foregoing analysis of Seufert in conjunction with the following discussion.

The determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1584, 3 U.S.P.Q.2d 1436, 1439 (Fed. Cir. 1987). Initially, the PTO bears the burden of establishing the *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed Cir. 1984). To establish a *prima facie* case, the PTO must satisfy three requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of

the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). To support a conclusion of obviousness, "either the references must expressly or impliedly suggest the claimed combination or the [PTO] must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int. 1985). In evaluating obviousness, the Federal Circuit stated that one must look to see if "the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have had a reasonable likelihood of success viewed in light of the prior art." *In re Dow Chemical Co. v. American Cyanamid Co.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed.

Cir. 1988). Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." *Id.* As discussed below, these requirements of a valid obviousness rejections are not met by the Official Action in the present case.

Seufert is discussed in detail above. Campbell et al. discloses a method of forming a multi-ply cardboard carton wherein strips of tape are laminated between the plies of cardboard. These tapes are located so that they are co-extensive with what will become the edges or at least some of the edges of the carton when it is erected. In other words, the tapes are laminated between plies of the carton so that they extend along the fold lines of the carton. The carton is then scored along these fold lines and along the internally laminated strips of tape. In this way, the tape extends along and around the edges of the carton when it is erected to strengthen the edges of the carton. The novelty of the Campbell et al. process is that the score lines are formed before the adhesive between the internally laminated strips of tape is cured. In this way, it is contended, the tape strips can slip in the wet adhesive with respect to the outer laminations during scoring, which prevents delamination between the tape strips and the layers between which they are laminated.

It is important to recognize that in Campbell et al. the tapes are always intentionally positioned and oriented along fold lines, i.e. along the lines to be scored in the laminated carton blank. The score lines thus do not have to transition between an unreinforced region of the carton and a reinforced region of the carton. They are always formed completely within the reinforced regions. Thus, problems associated with the transitioning of a score line between the two regions of the carton do not present themselves and, accordingly, are of no concern to Campbell et al.

In stark contrast to Campbell et al., the claimed methodology of the present application is directed to forming a reinforced paperboard carton wherein fold lines purposely extend not along reinforced regions as in Campbell et al., but transverse to such regions. Thus, unlike the Campbell et al. method, the score lines in the presently claimed method must transition between a thinner unreinforced region and a thicker reinforced region. This is a situation that simply does not exist in Campbell et al. because the score lines always extend along the internally laminated tape strips. Further, it gives rise to problems not faced by Campbell et al. as discussed in detail in the specification of the present application. In order to solve these problems, Applicants have discovered the claimed methodology of forming a score line transitioning the

two regions that is wider in the reinforced region and narrower in the unreinforced region with a unique transition zone between the two regions. All of the claims of the present application include a recitation of this basic innovation.

The Official action is correct that Campbell et al. does not disclose scoring fold lines with a section of the fold line wider than another section. In view of the forgoing discussion, it is clear why this is true. The problem of transitioning between reinforced regions and unreinforced regions simply does not exist in Campbell et al. and so there is no impetus or reason why a solution to such a problem should be considered. For this same reason, there is no motivation and certainly no suggestion in the references to combine Seufert (or any reference dealing with transitioning a score line between reinforced regions and non reinforced regions) with the Campbell et al. method. There simply is no problem presented by Campbell et al. to be solved by such a combination.

Even if the suggested combination were to be made without any motivation to do so, it would not result in the unique methodology of the present claims. The result would be nothing more than a carton with tape reinforced edges and a clear plastic window with thinned down wrinkle zones allowing visibility into the carton.

Further, the suggested combination of Seufert with Campbell et al. simply is not practically possible. Campbell et al. discloses a continuous lamination process wherein tape strips are internally laminated in a carton blank extending along fold lines. In Seufert, a cardboard blank with a cut-out window is formed and scored, a foil sheet is separately formed and scored with the thinned down areas being pressed into the plastic with a hot press, and the plastic foil is aligned and secured within the cutout window of the blank. Applicants are aware of no known process by which the window configuration of Seufert can be formed in a continuous lamination method as taught by Campbell et al. Thus, not only is there no motivation or suggestion to make the suggested combination, actually making it is a manufacturing impossibility.

Finally, the suggested combination, even if made, would result in an unviable product. Specifically, Campbell et al. teaches to reinforce the edges of a box with internally laminated tape. To do this with the suggested combination would result in a window carton in which the edges of the clear plastic window were covered with tape strips. The essential reason for providing the window, clear visibility into the box, as well as the aesthetic appearance of the box would be ruined.

In summary, the PTO has the burden of establishing a *prima facie* case of obviousness to support a rejection under §103.

The three requirements for establishing such a *prima facie* case have not been met in the present case. First, the prior art contains no suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine the two references here. In fact, there is a disincentive since to do so would produce an unviable product. Second, the proposed modification of the prior art has no reasonable expectation of success since the box configuration of Seufert is incompatible with a continuous lamination process such as that disclosed in Campbell et al. Lastly, the prior art reference or combination of references in this case utterly fail to teach or suggest all the limitations (i.e. all of the steps of the claimed method) of the claims. Accordingly, the initial rejection of claims 1-5, 7, 11, and 33-37 under 35 USC 103(a) is not justified and should be withdrawn.

Claims 8-10 and 12-15 have initially been rejected under 35 USC §103(a) as being unpatentable over Campbell et al. in view of Seufert and further in view of Haddock. All of these claims depend from independent claims discussed in detail above and include all of the process steps of these independent claims. Thus, for the same reasons offered above, claims 8-10 and 12-15 are allowable over the suggested combination.

In summary, the telephonic election of invention without traverse is hereby confirmed. The claims remaining in prosecution, claims 1-15 and 33-37, recite a unique method of making reinforced paperboard cartons not taught or suggested by the art. These claims are therefore in condition for allowance and an early notice to such effect is earnestly solicited.

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